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10. Difficulties of Enforcing Environmental Regulations in China

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In our globalized world the Chinese economic performance plays an inevitable role. This spectacular economic growth, however, was coupled with never before seen economic damages, such as deforestation, decrease in drinking water quality, desertification and eroding maritime areas. In China, the environmental protection has got publicity back in 1974 for the first time; although it was not until 2006 when the government incorporated this issue into the eleventh five-year plan. From this moment on, environmental protection is represented on the highest levels. Despite, however, of the numerous laws regulating the environmental pollution of companies, the government is often criticized because the implementation of environmental laws seems to be rather poorly executed. This particular situation has contributed to the creation of certain level of dissatisfaction among Chinese citizen.

Present paper analyzes the available literature on the Chinese regulatory political background to a deep degree in hope of finding the reasons behind the presented controversial situation. It is found that authorities lack the means of enforcement while in the same time monitoring or supervisory system is not developed sufficiently.

Keywords: China, environment, pollution, legal regulations, interest promotion.

1. Introduction

The pollution is generally manifested in the fact that from time to time dark clouds of smog descends on the eastern coast cities reducing the line of sight with a significant amount and completely obscuring the sun. Although the health effects of such a situation are well-known, the situation does not seem to improve. Not even in spite of the environmental regulation that got stricter since the beginning of the eleventh five-year plan. This opens the questions of why this could be happening. To conduct this study and trying to answer this problem the contemporary institutional and legal background is described, aiming to unfold the routes of interest promotion and conflicts behind the framework of the Chinese institutional web. Since local enterprises are the main contributors for pollution, their role in the institutional framework is discussed as well.

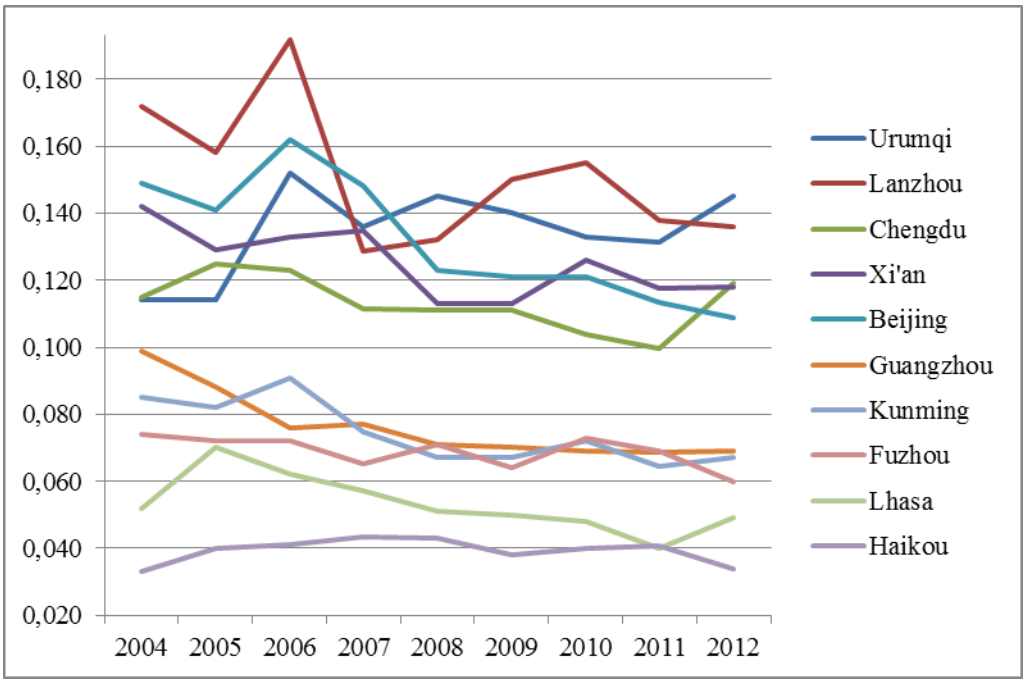
One reason that everyone thinks first might be identified in the pursuit of economic growth. Since industrial production (mainly the building industry and transportation sector (see for example He et al. (2013), Zhou et al. (2014)) is simultaneously the main source of pollution, and the engine of growth, it is feared that the rigorous enforcement of environmental regulations could undermine the increase in economic performance that is

based on cheap and abundantly available workforce and underdeveloped environmental regulatory system (Chen − Wang 2014). Thus, a dual interest in the Chinese economic and political web can be pinpointed: on the one hand, the severe environmental situation should be improved. On the other hand, however, the need for growth also has to be taken into account: without growth China would not be able to assign work for people who just got into the working age and ultimately this could lead to an additional set of problems that are, however, not discussed here. Because of this there is no real incentive – except for the natural health, of course – for enforcing the environmental regulations. The problem is, however, more complex than the one presented here and in order to comprehend all the details, further discussion about the Chinese political and institutional web is necessary, as well as the role of the environmental protection throughout history needs to be assessed. At the end, it is hoped that a comprehensive view is provided and the role of local level enterprises in this framework is understood.

2. History of environmental protection in China

Since 2013 there is a growing amount of press coverage concerning environmental pollution. It is not surprising that to some extent policy makers had to react on the increasing pressure from the society, so they not only show more commitment to environmental problems, but also issue a set of laws regarding the protection of environment (Beyer 2006). It is subject to controversy, though, that in spite of the growing amount and increasing quality of environmental regulations, the numbers concerning the state of environment are not even close to the healthy value, although there are some improvements (Watts 2005). One of the major and inevitable indicators is the PM2.5 and PM10 that measures the particulate matter in the air. Based on the World Health Organization's guidelines, an annual mean of PM10 of below *0.020 milligrams* is regarded healthy (WHO 2005). In the major Chinese cities – despite the values have plummeted – the figures are way above the threshold, even in case of the less polluted cities (Figure 1). There is a document published in 2010 that tries to tackle this special environmental-related problem and promote sustainable growth by making local industries reduce their pollutant emission to be in line with the so called *Grade 2 Standards* (State Council 2010), Latter tries to force local industries to reduce their pollutant emission to be comply with the guidelines published in Grade 2 Standards. But based on what is experienced, its effects are dubious (Figure 1).

Figure 1 Particulate Matter (PM10) concentration levels in top and bottom five major cities in China between 2004 and 2012 (milligrams)

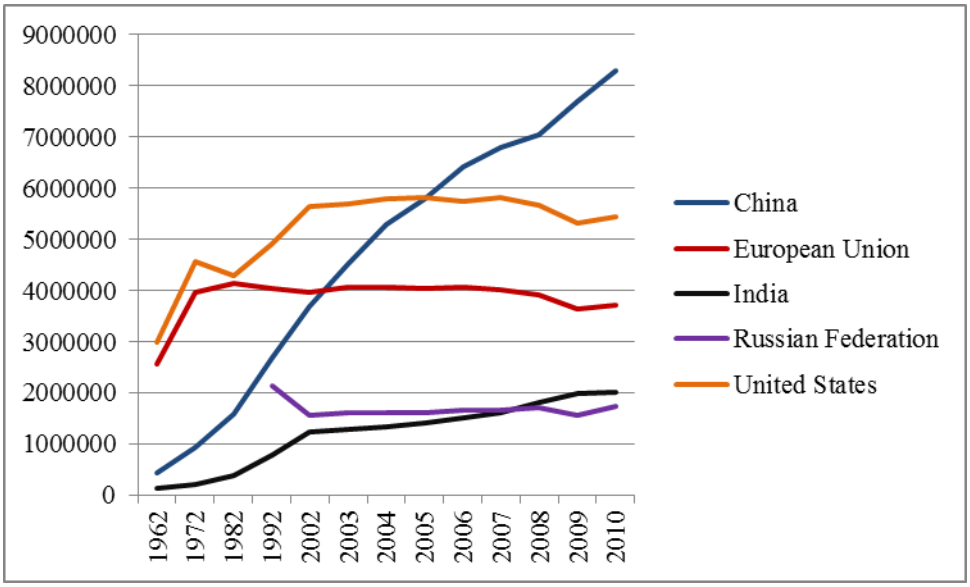


Source: Chinese Statistical Yearbook (2013)

Although smog, thus particulate matter is the most noticeable sign of environmental pollution because of its ability to form smog in the urban areas, several other, more elusive aspects of environmental degradation should be addressed. CO_2 is the most common elements in the atmosphere that researchers talk about in case of climate conferences. Although China is a ratifying member of the Kyoto Protocol Doha Amendment of 2012, which is by far the most famous international treaty aimed to decreasing man-made carbon-dioxide emission; the country did not target any certain level of CO_2 reduction (UN 2015). CO_2 levels have been relatively steady in the industrialized countries, while India managed to tenfold its emission.

The most noticeable increase in CO_2 emission occurred in China and this growth seems to be even more sharp since the recent economic crisis, although small increases have followed in case of the other countries as well in the same time period. Chinese carbon-dioxide emission came into spotlight in 2005 when the country' s emission exceeded that of the United States of America's (Figure 2).

Figure 2 CO_2 emissions of the top 5 present day emitters from 1962 to 2010 (kilotons)



Source: Worldbank (2015)

So far, the pollution situation related to the emission of CO_2 of China in comparison with the world top pollution countries was described. Before going any further, one should take a deeper look at the Chinese power structure. It is hoped that one will have a contextual understanding about why it seems to be so difficult to promote environmental interest in China.

3. Chinese power structure

To get a more comprehensive picture about the legal ways of environmental protection, it is worth taking a look on how laws are formulated in China. First of all, Chinese administration is relatively decentralized: There is a local version of almost every central level authority, which is responsible for their own level and one level upward. Altogether there are five levels. In the central level, the National People's Congress (NPC) is in charge of deciding about basic laws (Potter 2013). Because members of the NPC meet only once a year, the majority of the laws are issued by the Standing Committee that is the substitute body of the National People's Congress. They meet every two months with the goal of formulating laws and regulation in accordance with the basic laws issued by the upper body (Beyer 2006). NPC's work is influenced to some degree by the Political Consultative Conference, where the

allied parties[15] are able to promote their interest (CPPCC 2014). In this context, the environmental-related regulations are administered by the Ministry of Environmental Protection (MEP) since 2008 (MEP 2014) which answers for the State Council, which is the highest administrative body of the government, usually referred to as the executive branch.[16] Ministries are answering for the State Council itself.

The Communist Party of China has the ultimate say in every important issue, may they be local level or central level issues. The party initially followed the Soviet model, but later they split up and established the Chinese way of socialism, that is, the "socialism with Chinese characteristics" (Dirlik 1989). The main organ of the party is the National Congress that has a session every five years; their role mainly lies in setting highest level policy targets. During the time in between, the Central Committee has sessions once a year and is responsible for the same duties. The everyday tasks are carried out by the Politburo and its Standing Committee. The leader of the Communist Party of China is the General Secretary who is also the Head of State and the chief of the Central Military Commission that is thus under direct control of the party (McMillen et al. 2000). There are local level organizations as well, controlled in the same way as the other local organs of central authorities (dual way). There are, however, some areas where the Communist Party has no or less power. Such as in case of Hong Kong and Macau where the CPC is not part of the government or in case of the autonomous provinces, where – based on Soviet practice – the leader is local, but the party general secretary is of Han Chinese origin, though. In this case, as already explained above, party power can be maintained to some degree (CPC 2007).

Regarding the role of NGOs, prior to the 1973 establishment of the first environment-related organization in China at the central level, environmental protection was regulated by

[15] There are eight allied parties that are allowed by the CPC. These are included in the United Front that is the name of this group of parties, which includes Revolutionary Committee of the Kuomintang (中国 国民党革命委员会), China Democratic League (中国民主同盟), China Democratic National Construction Association (中国民主建国会), China Association for Promoting Democracy (中国民主促進会), Chinese Peasants' and Workers' Democratic Party (中国农工民主党), China Party for Public Interest (中国致公党), September 3 Society (九三学社), Taiwan Democratic Self-Government League (台湾民主自治同盟).

[15] Here it is worth noting that China is dissimilar to the modern European governments. The branches of power are not separated like in the Western democratic countries. This is because of the party state nature of China, where the Communist Party of China is interweaved with the whole state apparatus. This is why China is often referred to as a party state (e.g. Csanádi, 1997, 2006).

[16] Here it is worth noting that China is dissimilar to the modern European governments. Since the Communist Party of China is – directly or indirectly – in charge of selecting most political and economic targets, it is quite hard to differentiate between the branches of powers. This is why China is often referred to as a party state.

the state without any environment-related interest promotion (Ma − Ortolano 2000). Initial environmental authorities were unsuccessful because of the lack of their expertise and China's isolation in the 1970s and 1980s (Jahiel 1998). The first environmental NGOs appeared only in the second half of the 1990s (Ho 2001). There are two types of environment-related organizations in China (Mol − Carter 2007).

Since 2007, enterprises are also able to promote their interest by taking part at the meeting of the CPC Congress every five year. They are private funded business enterprises, who account for around 1% of all members, although, their number is increasing. According to Asianews (2012), being delegated as a businessman to the highest political congress of the party has only one simple requirement: a well-organized party cell in the given company. It is thought that by this the CPC wants to maintain control over the private sector with the stated goal: building a harmonious society (China.org 2006). In order for the businessmen to be represented at a higher degree, there is much to be done, though. Their 24 seats only account for a tiny fraction of the 2270 seats of the CPC's Congress.

It has been observed that in a country where the state and party power cannot be separated directly, interest promotion possibilities of the given organ in the power structure (or net) play an important role. This situation can be derived from the fact that countries ruled – ultimately – by one single party the bureaucracy seems to be overgrown simply for the reason that the party state wants to be at the helm of everything (Bunce − Csanádi 1993). In such a power structure the multiple opportunities of interest promotion cannot be neglected. As Csanádi (2006) points out in this network of allocation of resources there are different and a high number of dependency lines. This network constitutes a hierarchy where the higher position comes with more resources and interest promotion possibilities. In this relation, some the upper level unit provides resources to the lower unit in exchange for interest promotion. Thus, an interdependent relation is established. The interchanging actors are captured by the dependency lines. These lines cannot be broken afterwards, because it is necessary for both actors. As explained, there are times, however, when resources become scarce. This is referred to as hard budget constraints. When a unit in the power structure becomes deprived from resources (maybe because they failed to allocate the input via their dependency lines), they are facing a hard budget constraint, which means that the long-term survival of the line is endangered (Csanádi 1997). In a party state like China this process can be selective, whereby the hard and soft budget constraints are "allocated" at the highest levels, having a *structural* nature of reproduction (Csanádi 2006).

Nonetheless a whole system can come to a hard budget constraint. When this happens, the interdependent lines are broken and the loss of cohesion of the structure as a whole will be observed. Unless the dependency lines are re-established taking the new constraints of budget into account, the system as a whole might become subject of transformation, i.e. self-consumed, such as in case of Hungary in the 1990s (Csanádi 1995).

For more information about the Chinese power structure see Attachment 1. So far, the institutional background of the environmental protection was discussed.

4. The history of environmental protection in China

Since choking smog is increasingly common in urban areas, Chinese government has taken many legal steps for containing pollution and converting the Chinese path of growth to a more sustainable one (Hong et al. 2013). These actions culminated in the formulation of the 2005 Law on Renewable Energies that set a target for using energy from renewable sources up to 16% by 2020 (Lo 2014). The current level, however, accounted for no more than 9% as of 2014 (Statistical Yearbook 2014). In 2008, the Chinese government decided on the establishment of a ministerial level body (Zhang − Wen 2008), which main objective was set to deal with environmental issues, such as prevention and current issues, including nuclear safety (Mol and Carter 2006), as well as formulating environment-related national strategies and guidelines (MEP 2014). On the other hand, this has been a very long process that consisted of multiple phases (Table 1).

Table 1 Main stages of Chinese environmental protection

Name	Abbreviation	Year of establishment	Answers to
Environmental Protection Office	EPO	1974	State Council
Environmental Protection Office	EPO	1982	MURCEP
National Environmental Protection Bureau	NEPB	1984	MURCEP
National Environmental Protection Agency	NEPA	1988	State Council, autonomous
State Environmental Protection Agency	SEPA	1998	State Council, autonomous
Ministry of Environmental Protection	MEP	2008	Ministerial level, autonomous

Source: own construction based on Wang et al. (2003), Beyer (2006), Mol − Carter (2006), MEP (2014)

Regarding the institutional background of environmental protection it is worth noting that China had a millennia old legacy that ensured the harmonic coexistence of men and environment by cultivating on a sustainable level, using only as much as they needed. This, however, had been changed in the second half of the twentieth century when China embarked on the road of industrialization. The state of the environment had been degrading with a fast tempo, and it was not until the 1970s when decision makers realized that the burden that the industrialization put on the environment is too high and that some aspects had to be changed. The year 1973 marks the date in the Chinese political history when environmental protection emerged: initially, in insignificant governmental bodies but from 1974 onwards its importance gradually increased and ministry level authorities assumed the task. Based on Wang–Morgan–Cashmore (2003), Beyer (2006) and McElwee (2011), the process of development may be divided into six periods.

1. The First National Environmental Protection Conference was organized and held and the establishment of an environmental protection committee was agreed upon. This was realized in 1974 and was called Environmental Protection Office (EPO). The EPO used to be directly subordinated to the main executive body, the State Council, and had a dual goal: firstly, it was responsible for postulating best practices regarding environmental protection that the county and city level authorities could follow, secondly there was a need for an environmental protection basic law that was formulated in 1979 and entered into force in 1989, as it has been already mentioned.

2. In the second stage, from 1982-1984, the role of environmental protection was pushed into the background. The EPO was combined with another authority, creating the Ministry of Urban and Rural Construction and Environmental Protection (MURCEP). The loss of priority emerged in the fact that this organization was no more sub-delegated under the State Council, so environmental protection interests needed a longer path to be promoted.

3. It was not until 1984 when the powers of the EPO under MURCEP were broadened. First, it was renamed to National Environmental Protection Bureau (NEPB) and its goal was determined in postulating new laws in accordance with the provisionary environmental protection law (remember that the EPL entered into force only in 1989).

4. The next big step in the development of China's environmental protection structure occurred in 1988 when the NEPB was finally detached from the MURCEP and full

autonomy[17] was provided for it. Despite of this favorable development, China still lacked the existence of a ministerial level environmental protection organization. Nonetheless the above described newly established autonomous body was called National Environmental Protection Agency (NEPA) and it answered directly to the State Council again. In contrary to the previous version of this institution, with the newly provided political autonomy, NEPA was able to formulate laws and find solution for environmental problems that emerged in the meantime. NEPA was rather active on its ten-year course. Many of the laws that are currently in force regarding the protection of environment were formulated by the NEPA (e.g. Law of the People's Republic of China on the Protection of Wildlife (1988), Water Law of The People's Republic of China (1988), Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution (1995) or Law of The People's Republic of China on Water and Soil Conservation (1991) (MEP 2014)). Just after one year of NEPA's existence, by 1989 most of the local level governments had established an EPA that were responsible for promoting local environmental protection interests (more or less successfully, since big projects required an environmental impact study that was manipulated in favor of the investment of local enterprises). Nonetheless, following a ten-year probationary period, the EPL entered into force in 1989.

5. The favorable path of the environmental protection continued in this period. In 1998 the NEPA's powers were extended and under its new name (State Environmental Protection Agency – SEPA) its goal became to supervise ongoing projects and if necessary, suspend their implementation until the environmental impacts are assessed properly. This was the first organization in the environmental institutional history of China that made efforts in order to enforce environmental laws. The reason behind the latest was that even though China had regulations regarding the state of the environment, no authority really took responsibility to enforce them (probably because of the pursuit of economic growth).

6. Ten years after the establishment of SEPA, the first ministry level authority for environmental protection called Ministry of Environmental Protection (MEP) was created in 2008. Its goal was determined in establishing nuclear safety (Mol − Carter 2006) and formulating environment-related national strategies and guidelines (MEP 2014). The work of the MEP is assisted by local level EPBs that can be found in all four local levels of Chinese

[17] Autonomy here means that in theory, autonomous bodies are not subordinated directly to any other Chinese authority but the State Council, making it possible proposals of the autonomous institutions in China can be directly accepted by the National People's Congress without the need of any other supervision process.

administrative divisions[18]: province, city, town and village levels (Beyer 2006 et al. 2006). These authorities are widely criticized but it is going to be discussed about only later on this chapter. The path of the environmental protection from an insignificant office to a ministry level authority is illustrated in Table 1, at the beginning of this section.

To comply with the research question in the beginning of the paper, the obstacles of enforcement of environmental laws and regulations are to be presented.

5. Obstacles of environment-related regulations' enforcement

In China, environmental regulations need to be in accordance with the 1989 Environmental Protection Law (EPL) that is a basic law. It was formulated in 1979 with provisional nature and took its final form in 1989 when it also entered into force (Bayer 2006). Because the spectrum of the EPL is very wide, it does not strike as a surprise that many environment-related issues have been covered so far. Since its establishment altogether 149 laws, regulations and interpretations have been issued (MEP 2014). These laws, however, tend not to be executed by government authorities or applied by local enterprise. Reasons behind this can be grouped into two groups. On the one hand, mostly because of the authoritarian style of the government, the civil society seems to be too weak to step up in order to promote their rights (Zhang − Wang 2013). This is also due to the Confucian heritage, namely that the Chinese society is regarded as a rather closed, collectivist one, where there is not so many place to promote own interests (Liu et al. 2012). In addition, the lack of real green NGOs (the situation regarding NGOs is described above) is not a fruitful situation either (Unger 1996). To further weaken the otherwise positive role of the presence of the NGOs, in China, no civil organization can exist without the consent of at least one party officer, who also exercises controlling rights in the NGO (He et al. 2014).

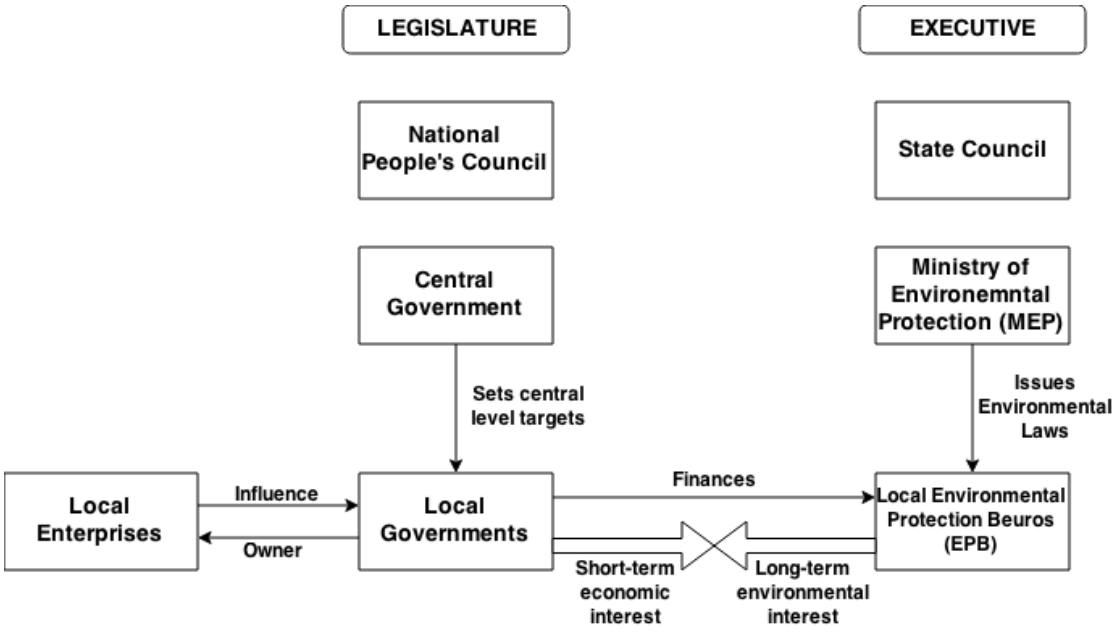
On the other hand, this picture is further rendered by government-side shortcomings, such as the lack of a proper monitoring system, which would allow government authorities to supervise the implementation of an economy related law (Xie et al. 2011). Even if a company wanted to comply with the law, in many cases the infrastructural background for it is not created. As agreed upon by Beyer (2006), even if a law required a company to incinerate the

[18] The Chinese administration has five levels. From top to down they are the following: central, provincial, county, city and township levels. Usually, each central level authority has their corresponding local level unit. Local levels are responsible for the local level, and one level up. For example a county-level authority is responsible for the county level authorities, and the province level authority of the same body (Xu 2011).

waste they had produced, sometimes there is no waste incinerator for disposal, therefore the company cannot discontinue disposing the dangerous waste in the nature. Also, as Kostka et al. (2013) explain, in many occasions, information does not get to the leaders of the company, so that they remain uninformed about possibilities for enhancing for example energy efficiency. A detailed explication of the obstacles of the enforcement can be found in Figure 2.

This adverse fact can be contributed to the central government's shortcoming that it is unable to promote its interest in local levels. Beyer (2006) and Liu et al. (2012) explain that China is a single state where the laws are issued on the central level, thus there are cases when local governments' interests are not taken into consideration (regarding the diversity of China this is not a wonder). They argue that China is too centralized (one size does not fit all).

Figure 2 Interest conflict between growth and environmental protection



Source: own construction based on Beyer (2006), He et al. (2014), Zhang and Wang (2013)

Figure 2 explains an interest conflict between local governments and environmental interest promotion. The relations in the figure are not so implified, for the precise version, please see Attachment 1. The current adverse situation arises from the fact that there is a too strong interest connection between Chinese small and medium size enterprises and the local governments (He et al. 2014), so often the local enterprises are pardoned upon. A reason behind this attitude can be that the industrialization of rural areas has coupled with a significant increase in GDP growth, thus increasing living standards in the area in concern. Zhang and Wang (2013) argue that governments want to prolong the positive effects, thus

turning a blind eye on the environmental pollution. Therefore, two conflicting interests exist at the same time: 1) the short-term interest of the economic growth and 2) the long-term interest of the sustainable development that takes into account the role of the environment as well. This interesting picture could have implications regarding agency theory as well, as proposed by Eisenhardt (1989). This consists of the principal-agent relation often referred to as the agency problem. The idea is about the situation where the principal (the MEP) entrusts the agent (local level authorities) to carry our tasks, but the agent acts on their own self-interest, rather than the principal's. Should local governments have an incentive to carry out environmental regulations, it could affect production and for this reason the Euro-China trade as well, due to the possible decrease in production.

6. Summary

Present paper tried to examine the obstacles of enhanced enforcement of environmental laws and regulations regarding local level enterprises as the main contributors in pollution. Findings suggest that governmental authorities have shortcomings regarding monitoring system and there is no real incentive at local levels to sacrifice growth for environment (pursuing economic growth is a more viable solution). Also, the way interest is promoted in China has a very special characteristic that may also contribute to the current situation. Furthermore, the millennia old social structure also results in conserving the adverse environmental-economic system. Ultimately, it can be concluded that short-term interest (rapid economic growth) is more powerful than long-term interest (environmental protection and sustainable growth).

Possibilities for a future research: So far, the interest conflict between short and long term economic growth was revealed, as well as the local level enterprises' role in the institutional background was briefly discussed. It, however, could be of special interest to discover what kind of implication all of the above has on the Euro-China trade relation. Since trade is one of the main motivators nowadays for bi- and multilateral economic partnerships, it can be promising to find out how economic and trade relations are affected by the changing (environmental) regulatory background in China. From this perspective, a future research on this topic could be investigating, whether European managers, thus Euro-China trade, are affected by the possible changes in China's environmental enforcement or regulatory background. For this to achieve, the DELPHI expert panel method could be of great help. This methodology has been proven to be effective in case of information systems research

(Brancheau et al. 1996). The method itself is used for structuring a group's communication process and its aim is to reach a consensus among experts' opinions, usually applied for a complex problem, so that the best solution could be applied. It can be used either for forecasting future scenarios or establishing a concept framework (theory building, like in case of this option). To carry out the research, experts are asked for their opinions multiple times, during which individual opinions may be the subject of change, iterating among experts (Smidth 1997).

The method starts with setting up research questions, which the researcher expects the experts to come to a consensus on. In this case, the questions could be the following.

What kind of implications do environmental protection-related regulations have on the Euro-China trade flow?

What are the sectors of trade that might be affected the most, if a sudden change in China's regulatory environment or in the way of implementing environmental laws were to happen?

What are the main considerations that European managers take into account when it comes to environmental pollution?

Selecting the experts has a key role in this methodology. According to Okoli and Pawlowski (2004) four panels, each of them containing ten experts should be enough to reach a high degree of consensus. First, they need to be contacted by e-mail, phone or fax and once selected, the researcher asks for their word that they are willing to participate in the study. Experts can come from any field, including academics, practitioners, government officials and officials of NGOs. A well carried out DELPHI study usually consists of up to six rounds. In each round, an up to fifteen minutes long questionnaire is handed out to the experts and is expected to be returned within one week. After the rounds of iteration, the researcher ranks the relevant factors and a consensus is expected to be established. With this methodology it is expected that the questions regarding Euro-China trade can be answered so that a contribution to the scientific literature can be achieved on the Euro-China trade considering environmental protection relations.

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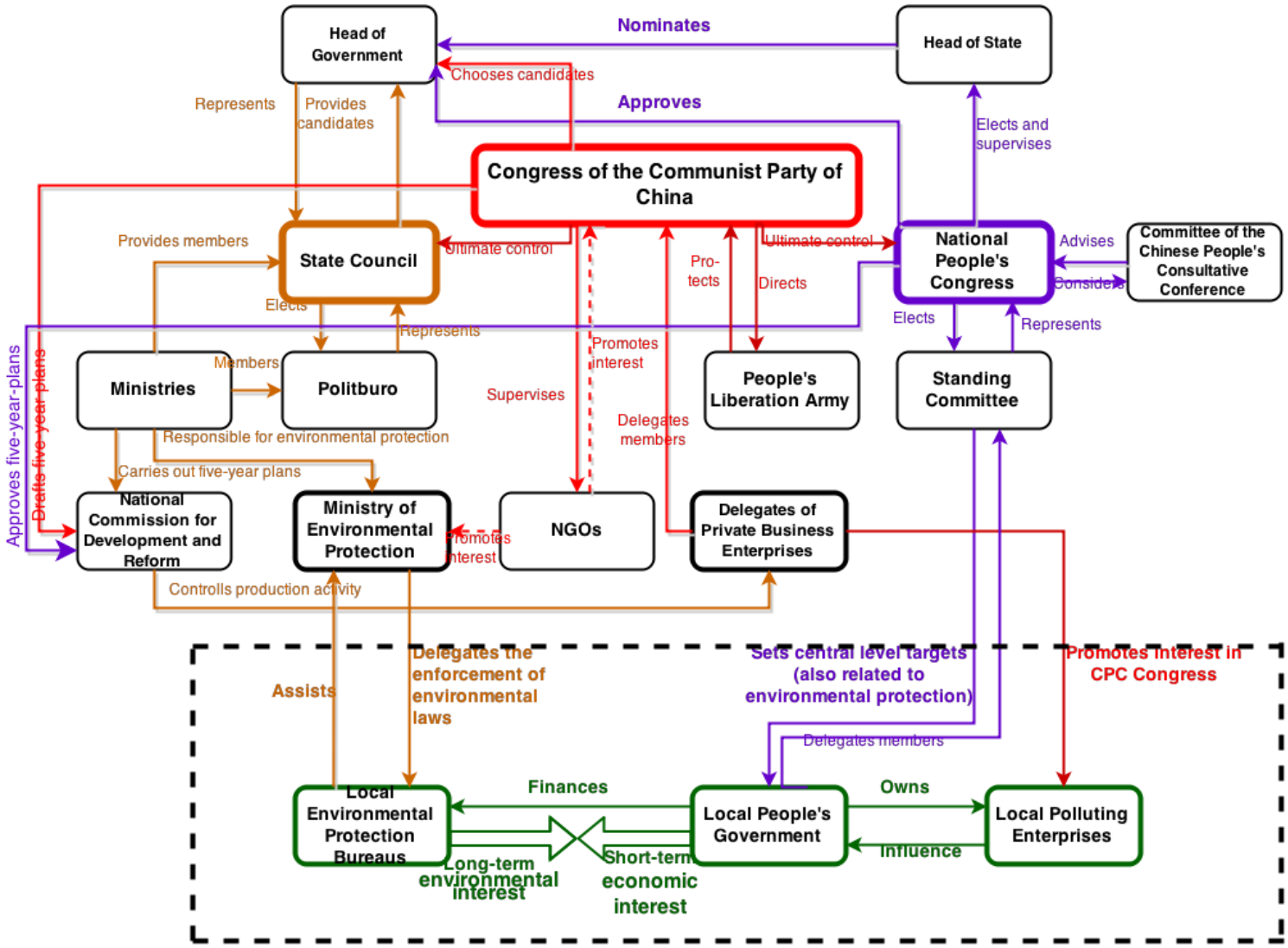
Appendix 1 Power structure of China



Source: own construction